

PART I  
DEVELOPMENT

DEPARTMENT OF HUMAN RESOURCES  
1.315  
STATE OF HAWAII 1.316

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Class Specifications  
for the Class:

TUNNEL SYSTEMS OPERATOR SERIES

**Series Definition:**

This series includes all classes the duties of which are to maintain surveillance of traffic and other tunnel activity by means of closed circuit television monitors and other electronic sensor equipment; execute traffic control changes and various other emergency procedures in the event of traffic accidents, fire, equipment failure, hazardous material spills and other roadway hazard conditions, unauthorized entry, attempted theft or vandalism, or other occurrences; serve as coordinator for the emergency and maintenance personnel; and receive calls from motorists via the Oahu highway emergency telephone system and initiate police, fire, emergency medical, roadway clearance, and other assistance based on information elicited from callers.

**Level Distinctions:**

Classes in this series are distinguished from each other by differences in: 1) the nature of supervisory control exercised over the work; 2) the nature and scope of recommendations, decisions, commitments and conclusions; 3) the nature and extent of supervisory control over the work of other employees; and 4) the knowledges and abilities required.

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This is the first specification for the new classes TUNNEL SYSTEMS OPERATOR I, II and III.

Effective Date: 3/16/97

DATE APPROVED: \_\_\_\_\_

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TUNNEL SYSTEMS OPERATOR I  
1.315

**Class Distinguishers:**

Complexity: Receives training in the operating policies and procedures for the tunnel control center involving normal surveillance and emergency response activities, and in operating various traffic control and telecommunications equipment. Operates equipment and performs progressively responsible surveillance and emergency response activities.

Supervision Received: Work is performed under the close supervision of a Tunnel Systems Operator III.

Full Performance Knowledges and Abilities: *(Knowledges and abilities required for full performance in this class.)*

Knowledge of: Operation of a computer console in regulating remote surveillance cameras, traffic signals, message signs and other traffic control equipment; operation of a two-way radio, AM/FM rebroadcast/override system, and other telecommunications equipment; operating policies and procedures for the tunnel control center involving traffic safety, normal surveillance and emergency response activity, and the standard response procedures relevant to the various types of situations reported via the Oahu highway emergency telephone system; traffic operations guidelines; and incident report writing.

Ability to: Operate a computer console in regulating remote surveillance cameras, traffic signals, message signs and other traffic control equipment; operate a two-way radio, AM/FM rebroadcast/override system, and other telecommunications equipment; write clear and concise incident reports; communicate and work effectively with others; follow oral and written instructions especially during simulated and/or actual emergency conditions.

Examples of Duties: *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. The omission of specific statements does not preclude management from assigning such duties if such duties are a logical assignment for the position. The classification of a position should not be based solely on the examples of duties performed.)*

1. Participates in orientation and formal training sessions.
2. Studies operating policies and procedures.
3. Learns to operate a computer depicting traffic flow and roadway and security conditions, closed circuit television monitors, traffic movement displays, intrusion detectors and

vehicle detection stations.

4. Learns to operate a two-way radio and other traffic control and telecommunications equipment.
5. Carries out specified work operations in a learner capacity in accordance with instructions. As competence is gained, assumes independent performance of various work functions such as in operating traffic control and telecommunications equipment.
6. Operates a pickup truck, van or other vehicles to inspect operations problems and/or mishaps in the tunnels and on approaches as required.

TUNNEL SYSTEMS OPERATOR II

1.316

**Class Distinguishers:**

Complexity: Independently maintains surveillance of traffic and other tunnel activity via closed circuit television monitors and other electronic sensor equipment to assure safe traffic movement; responds to traffic and security incidents by executing traffic control changes and various other emergency procedures and by notifying appropriate agencies (e.g., police, fire, ambulance, plant maintenance personnel); serves as a coordinator for the emergency and maintenance personnel; and logs shift incidents. Work is largely performed in accordance with policies, procedures and guidelines; however, decisions which are not covered by available guidelines may be required in unusual/emergency situations.

Supervision Received: Works independently under the general supervision of a higher level Tunnel System Operator.

Full Performance Knowledges and Abilities: *(Knowledges and abilities required for full performance in this class.)*

Knowledge of: Operation of a computer console in regulating remote surveillance cameras, traffic signals, message signs and other traffic control equipment; operation of a two-way radio, AM/FM rebroadcast/override system, and other telecommunications equipment; operating policies and procedures for the tunnel control center involving traffic safety, normal surveillance and emergency response activity, and the response procedures relevant to the various types of situations reported via the Oahu highway emergency telephone system; traffic operations guidelines; and

incident report writing.

Ability to: Operate a computer console in regulating remote surveillance cameras, traffic signals, message signs and other traffic control equipment in accordance with applicable guidelines to assure safe traffic movement and changes required due to emergency situations; write clear and concise incident reports for damage claim or other purposes; work in a cooperative and coordinated fashion with other shift crew members in dealing with emergency traffic situations; respond in accordance with operating policies and procedures to security alarms and traffic emergencies and other varying conditions in a calm, deliberate and expeditious manner; speak clearly and concisely in dealing with emergency crews and motorists regarding emergency situations and traffic conditions; understand and interpret equipment and operations manuals, and sensor equipment printouts; and maintain shift operational records with consistency and correctness.

**Examples of Duties:** *(Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. The omission of specific statements does not preclude management from assigning such duties if such duties are a logical assignment for the position. The classification of a position should not be based solely on the examples of duties performed.)*

1. At an assigned computer console station, maintains continuous observation of tunnel traffic flow, and roadway and security conditions, via closed circuit television monitors, traffic movement displays, intrusion detectors and vehicle detection stations.
2. Regulates surveillance cameras to modify scan pattern and focus in the course of observing ongoing traffic and erratic or speeding vehicles, and in reacting to alarms indicating possible security breaches within the traffic tunnels. Notifies the police if it appears that the situation might jeopardize public safety.
3. Checks status/incident printouts from a variety of electronic sensors relative to equipment performance and tunnel security to assure a required response has been achieved or initiated.
4. Monitors carbon monoxide sensors. If an overconcentration occurs, determines whether to activate the large ventilation fans based on location, level, wind direction, and wind speed. Monitors overheight vehicle detectors and initiates action to prevent tunnel entry of such vehicles; monitors

- fire detection system, and initiates emergency response by plant maintenance crew and/or the fire department.
5. After determining the severity of traffic and security incidents, relays pertinent incident information to the tunnel emergency response crew for plant maintenance and other public safety agencies as required.
  6. Assesses traffic situations and, initiates traffic slowdown/stoppage, lane closure, tunnel closure and/or re-direction of traffic as required by the nature and severity of emergency conditions and in accordance with applicable guidelines in order to safeguard the public, tunnel and other property and equipment and assure the resumption of normal traffic flow and tunnel operations. Operates and controls traffic signals, lane control devices, variable and changeable message signs, emergency exit signs, strobe lights, beacons, radio override systems, and other equipment to direct traffic movement and changes.
  7. Monitors emergency response plant maintenance crew via closed circuit television and maintains internal communication by two-way radio and emergency telephones to provide direction and assure backup as needed.
  8. Operates the AM/FM rebroadcast/override system to alert and instruct tunnel motorists on actions they are to take during a tunnel emergency.
  9. Assesses the severity of incidents and as necessary, contacts police, fire, emergency medical assistance and others as required and relays the necessary information in order to deal with emergency situations and their aftermath, and monitors public safety or other emergency crews via closed circuit television to provide operational information based on visual overview, and serves as communications link.
  10. Monitors the intrusion detection system deployed throughout the tunnel complex, utilizes cameras to visually confirm an intrusion if such occurs in line of sight, and notifies shift emergency crew in plant maintenance and/or police, if required, to respond to intrusion alarm.
  11. Continues oversight of emergency response, automotive equipment and debris removal, hazardous material cleanup, and repair and other activities until normal traffic flow may be resumed and returns traffic signals, lane control devices, variable and changeable message signs and other equipment to regular operation.

12. Operates a pickup truck, van or other vehicles to inspect operations problems and/or mishaps in the tunnels and on approaches as required to assure proper/timely actions are taken such as re-routing overheight vehicles, removal of stalled or damaged vehicles; removal of debris, etc.
13. Manipulates controls and monitors equipment during maintenance checks and repairs to assist tunnel maintenance technicians or other repairers assure proper functioning of equipment.
14. Operates the highway emergency telephone system to respond to motorist calls for assistance; elicits relevant information from callers; contacts appropriate agencies as required; and handles follow-up or other calls to provide assurance to motorists and/or request additional assistance as required.
15. Posts information on shift activities and emergencies to operation logs and drafts incident reports as required.
16. Attends training sessions; reviews equipment and procedures manual; and participates in mock emergency training exercises.

Tunnel Systems Operator III 1.317

**Class Distinguishers:**

Complexity: Serves as a working supervisor on a shift; oversees the work of lower level operators; and performs traffic systems and tunnel operations activity work.

Supervision Received: Works independently under the general supervision of the head of the Traffic Operations Unit.

Full Performance Knowledges and Abilities: (*Knowledges and abilities required for full performance in this class.*) In addition to the knowledges and abilities required of the next lower level:

Knowledge of: Layout and operational responsibilities of the tunnel control center; principles and practices of supervision.

Ability to: Plan, organize, assign and direct the work of a

shift crew in a tunnel control center; supervise and participate in operating a computer console in regulating traffic control equipment and in operating telecommunications equipment; understand and interpret the details of traffic operations, policies and procedures; recommend operational changes to improve tunnel control center effectiveness and efficiency; maintain discipline on a shift; evaluate the work performance of subordinates; participate in the interview and selection of new crew members and provide training; and follow through on mock training exercises.

**Examples of Duties:** (Positions may not be assigned all of the duties listed, nor do the examples necessarily include all the duties that may be assigned. The omission of specific statements does not preclude management from assigning such duties if such duties are a logical assignment for the position. The classification of a position should not be based solely on the examples of duties performed.)

1. Reviews the operational report of the previous shift in order to anticipate and take into account conditions which may impact traffic flow, tunnel security/safety, and surveillance activities.
2. Prepares shift work schedule of assignments and breaks, and ad:
3. Conducts and leads crew members in the operational check of equipment, and reports malfunctions or other tunnel situations requiring response by plant maintenance personnel.
4. Oversees the work of lower level operators on a shift and assures adherence to operating policies and procedures. Answers questions and/or provides clarification to subordinates as needed.
5. Reviews operator logs, prepares reports of shift activities and occurrences, and briefs operator in charge of the succeeding shift as necessary.
6. Instructs crew members on changes in operating policies/procedures and assures that crew members are well versed in contents of operating manuals.
7. Trains and instructs new crew members on operating policies and procedures, and equipment operation and operational maintenance.
8. Serves on interview panels and recommends staff replacements. Participates in performance reviews of

traffic system operations personnel, and initiates disciplinary action as required.

9. Recommends changes in operating policies and procedures in order to improve traffic system operation and crew performance.
10. In addition, performs work described at the lower level.